

**PROJECT SPECIAL PROVISIONS****ROADWAY****PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:**

(11-21-00)

RR 19

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *Standard Specifications* as modified herein.

The base price index for asphalt binder for plant mix is \$350.35 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on November 1, 2006.

**NOTE TO CONTRACTOR:**

1. On Map 6, SR 1630, Baltimore Road – DO NOT INCLUDE entrance to RJR Plant in paving operations.

**INCIDENTAL STONE BASE:**

(7-1-95) (Rev.7-18-06)

RR 28

**Description**

Place incidental stone base on driveways, mailboxes, etc. immediately after paving and do not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer.

**Materials and Construction**

Provide and place incidental stone base in accordance with the requirements of Section 545 of the *Standard Specifications*.

**Measurement and Payment**

*Incidental Stone Base* will be measured and paid for in accordance with Article 545-6 of the *Standard Specifications*.

**ASPHALT PAVEMENTS - SUPERPAVE:**

(7-18-06) (Rev 9-19-06)

RR 31

Revise the *2006 Standard Specifications* as follows:

Page 6-2, Article 600-9 Measurement and Payment

Delete the second paragraph.

Page 6-12, 609-5(C)2(c) add after (AASHTO T 209):

*or ASTM D 2041*

Page 6-13, last line on page & Page 6-14, Subarticle 609-5(C)(2)(e), delete and substitute the following:

(e) Retained Tensile Strength (TSR) - (AASHTO T 283 Modified), add subarticle (1) Option 1 before the first paragraph.

(1) Option 1

Add subarticle (2) Option 2 and the following sentence as the first sentence of the second paragraph:

(2) Option 2

Mix sampled from truck at plant with one set of specimens prepared by the Contractor and then tested jointly by QA and QC at a mutually agreed upon lab site within the first 7 calendar days after beginning production of each new mix design.

Page 6-28, 610-3(A) Mix Design-General, third sentence of the fourth paragraph:

Substitute 20% for 15%

First, second and third sentences of the fifth paragraph:

Substitute 20% for 15%

Page 6-44, 610-8, third full paragraph, replace the first sentence with the following:

Use the 30 foot minimum length mobile grade reference system or the non-contacting laser or sonar type ski *with at least four referencing stations mounted on the paver at a minimum length of 24 feet* to control the longitudinal profile when placing the initial lanes and all adjacent lanes of all layers, including resurfacing and asphalt in-lays, unless otherwise specified or approved.

Page 6-54, Article 620-4, add the following pay item:

| <b>Pay Item</b>                              | <b>Pay Unit</b> |
|--|-----------------|
| Asphalt Binder for Plant Mix, Grade PG 70-28 | Ton             |

Page 6-69, Table 660-1 **Material Application Rates and Temperatures**, add the following:

| Type of Coat | Grade of Asphalt | Asphalt Rate<br>gal/yd <sup>2</sup> | Application<br>Temperature °F | Aggregate Size | Aggregate Rate<br>lb./sq. yd. Total |
|--------------|------------------|-------------------------------------|-------------------------------|----------------|-------------------------------------|
| Sand Seal    | CRS-2 or CRS-2P  | 0.22-0.30                           | 150-175                       | Blotting Sand  | 12-15                               |

Page 6-75, 660-9(B), add the following as sub-item (5)

(5) Sand Seal

Place the fully required amount of asphalt material in one application and immediately cover with the seal coat aggregate. Uniformly spread the fully required amount of aggregate in one application and correct all non-uniform areas prior to rolling.

Immediately after the aggregate has been uniformly spread, perform rolling.

When directed, broom excess aggregate material from the surface of the seal coat.

When the sand seal is to be constructed for temporary sealing purposes only and will not be used by traffic, other grades of asphalt material meeting the requirements of Articles 1020-6 and 1020-7 may be used in lieu of the grade of asphalt required by Table 660-1 when approved.

Page 10-41, Table 1012-1, add the following:

| Mix Type | Course Aggregate<br>Angularity <sup>(b)</sup> ASTM<br>D5821 | Fine Aggregate Angularity<br>% Minimum AASHTO<br>T304 Method A | Sand Equivalent<br>% Minimum<br>AASHTO T176 | Flat & Elongated 5:1<br>Ratio % Maximum<br>ASTM D4791 Section 8.4 |
|----------|---|--|---|---|
| S 9.5 D  | 100/100   | 45   | 50  | 10  |

Page 10-45, Replace Table 1012-2 with the following:

**TABLE 1012-2**  
**NEW SOURCE RAP GRADATION and BINDER TOLERANCES**  
 (Apply Tolerances to Mix Design Data)

| Mix Type           | 0-20% RAP |        |       | 21-25% RAP |        |       | 26%+ RAP |        |       |
|--------------------|-----------|--------|-------|------------|--------|-------|----------|--------|-------|
|                    | Base      | Inter. | Surf. | Base       | Inter. | Surf. | Base     | Inter. | Surf. |
| Sieve (mm)         |           |        |       |            |        |       |          |        |       |
| P <sub>b</sub> , % |           | ± 0.7% |       |            | ± 0.4% |       |          | ± 0.3% |       |
| 1 1/2" (37.5)      | ±10       | -      | -     | ±7         | -      | -     | ±5       | -      | -     |
| 3/4" (19.0)        | ±10       | ±10    | -     | ±7         | ±7     | -     | ±5       | ±5     | -     |
| 1/2" (12.5)        | -         | ±10    | ±6    | -          | ±7     | ±3    | -        | ±5     | ±2    |
| 3/8" (9.5)         | -         | -      | ±8    | -          | -      | ±5    | -        | -      | ±4    |
| No. 4 (4.75)       | ±10       | -      | ±10   | ±7         | -      | ±7    | ±5       | -      | ±5    |
| No. 8 (2.36)       | ±8        | ±8     | ±8    | ±5         | ±5     | ±5    | ±4       | ±4     | ±4    |
| No.16 (1.18)       | ±8        | ±8     | ±8    | ±5         | ±5     | ±5    | ±4       | ±4     | ±4    |
| No. 30 (0.600)     | ±8        | ±8     | ±8    | ±5         | ±5     | ±5    | ±4       | ±4     | ±4    |
| No. 50 (0.300)     | -         | -      | ±8    | -          | -      | ±5    | -        | -      | ±4    |
| No. 200 (0.075)    | ±4        | ±4     | ±4    | ±2         | ±2     | ±2    | ±1.5     | ±1.5   | ±1.5  |

**GLASS BEADS:**

(7-18-06)

RR 35

Revise the *Standard Specifications* as follows:

Page 10-223, 1087-4(C) Gradation & Roundness

Replace the second sentence of the first paragraph with the following:

*All Drop-On and Intermixed Glass Beads shall be tested in accordance with ASTM D1155.*

Delete the last paragraph.

**ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES:**

(1-1-02)

RR 43

The approximate asphalt binder content of the asphalt concrete plant mixtures used on this project will be as follows:

|                                      |               |      |
|--------------------------------------|---------------|------|
| Asphalt Concrete Base Course         | Type B 25.0__ | 4.3% |
| Asphalt Concrete Intermediate Course | Type I 19.0__ | 4.7% |
| Asphalt Concrete Surface Course      | Type S 4.75A  | 7.0% |
| Asphalt Concrete Surface Course      | Type SF 9.5A  | 6.5% |
| Asphalt Concrete Surface Course      | Type S 9.5__  | 6.0% |
| Asphalt Concrete Surface Course      | Type S 12.5__ | 5.5% |

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the *Standard Specifications*.

**RESURFACING EXISTING BRIDGES:**

(7-1-95)

RR 61 Rev.

The Contractor's attention is directed to the fact that he will be required to resurface the bridges on this project if directed by the Engineer.

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. **(See "Davie County 2007 Resurfacing Bridge Data Listing" in the Detail Drawings Section of the Contract.)** State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations, **unless otherwise instructed**, so that State Forces will have sufficient time to complete their work.

At all bridges that are not to be resurfaced, taper out the proposed resurfacing layer adjacent to the bridges to insure a proper tie-in with the bridge surface.

**PAVING INTERSECTIONS, DRIVEWAYS, AND MAILBOX TURNOUTS:**

(7-1-95)

RR 70

Surface all unpaved intersections back from the edge of the pavement on the main line of the project at least 50 feet. Surface all driveway and mailbox turnouts as directed by the Engineer. The pavement placed in the intersections shall be of the same material and thickness as being used on the main line. Use material to pave driveway and mailbox turnouts that are being used on the project and place it in depths directed by the Engineer.

Resurface all paved intersections back to the ends of the radii, or as directed by the Engineer.

The unpaved intersections, driveways, and mailbox turnouts will be prepared for surfacing by State Forces.

Widen the pavement on curves as directed by the Engineer.

**PATCHING EXISTING PAVEMENT:**

(1-15-02) (Rev.7-18-06)

RR 88 Rev

**Description**

The Contractor's attention is directed to the fact that there are areas of existing pavement on this project that will require repair prior to resurfacing. Patch the areas that, in the opinion of the Engineer, need repairing. The areas to be patched will be delineated by the Engineer prior to the Contractor performing repairs.

**Materials**

The patching consists of Asphalt Concrete Base Course, Asphalt Concrete Intermediate Course, Asphalt Concrete Surface Course, or a combination of base, binder and surface course.

**Construction Methods**

Remove existing pavement at locations directed by the, **using a milling machine. This shall include, but is not limited to, the use of a milling machine to remove the existing pavement providing a neat vertical joint and uniform line; the removal and disposal of all pavement millings and sub-grade material as approved of or directed by the Engineer; the coating of the area to be repaired with a tack coat; and the replacement of the removed material with asphalt plant mix.**

Place Asphalt Concrete Base Course, in lifts not exceeding 5 1/2 inches. Utilize compaction equipment suitable for compacting patches as small as 3.5 feet by 6 feet on each lift. Use an approved compaction pattern to achieve proper compaction. If patched pavement is to be open to traffic for more than 48 hours prior to overlay, use Asphalt Surface Course in the top 1.25 inches of the patch.

Schedule operations so that all areas where pavement has been removed, will be repaired on the same day of the pavement removal and all lanes of traffic restored.

**Measurement and Payment**

*Patching Existing Pavement* will be measured and paid for as the actual number of tons of asphalt plant mix complete in place, that has been used to make completed and accepted repairs. The asphalt plant mixed material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices. The above price and payment will be full compensation for all work covered by this provision, including but not limited to **the use of a milling machine for the removal of pavement, the disposal of pavement millings and any sub-grade material**; furnishing and applying tack coat; furnishing, place, and compacting of asphalt plant mix; furnishing of asphalt binder for the asphalt plant mix; and furnishing scales.

Patching Existing Pavement will be considered a minor item. In the event that the item of Patching Existing Pavement overruns the original bid quantity by more than 100 percent, the provisions of Article 104-5 of the *Standard Specifications* pertaining to revised contract unit price for overrunning minor items will not apply to this item. Any provisions included in the contract that provides for adjustments in compensation due to variations in the price of asphalt binder will not be applicable to payment for the work covered by this provision.

Payment will be made under:

|                            |                 |
|----------------------------|-----------------|
| <b>Pay Item</b>            | <b>Pay Unit</b> |
| Patching Existing Pavement | Ton             |

**ADJUSTMENT OF MANHOLES, METER BOXES, AND VALVE BOXES:**

(7-1-95)

RR 103 Rev

Valve boxes, manholes, and meter boxes shall be adjusted in accordance with Section 858 of the Standard Specifications. This items consists of raising or lowering existing manholes and valve boxes to match the finished grade surface grade. **The Contractor will be required to effectively mark the locations of existing manholes and/or valve boxes and meter boxes, to pave over those devices, return after paving operations are completed, and adjust same to finished surface grade.**

Adjustment to manholes, meter boxes, and valve boxes on this project shall be made by the use of an approved **Black Tinted Concrete that will take a full set and become load bearing within sixty minutes of placement.** A list approved materials will be furnished to the Contractor by the Resident Engineer **upon request.**

The Contractor shall replace worn manhole rings and covers, worn meter box frames and covers, and worn valve box frames and covers, as directed by the Engineer, with a new ring/frame and cover assembly. These assemblies will be furnished, at no cost to the Contractor, by the Department or utility owner.

Basis of payment will be under "Adjustment of Manholes", or "Adjustment of Meter Boxes or Valve Boxes", per each.

**AGGREGATE PRODUCTION:**

(11-20-01) (Rev. 11-21-06)

RR 109

Provide aggregate from a producer who uses the current Aggregate Quality Control/Quality Assurance Program which is in effect at the time of shipment.

No price adjustment is allowed to contractors or producers who use the program. Participation in the program does not relieve the producer of the responsibility of complying with all requirements of the *Standard Specifications*. Copies of this procedure are available upon request from the Materials and Test Unit.

**CHANGEABLE MESSAGE SIGNS**

(11-21-06)

RR 111

Revise the *2006 Standard Specifications* as follows:

Page 11-9, Article 1120-3, Replace the 3rd sentence with the following:

Sign operator will adjust flash rate so that no more than two messages will be displayed and be legible to a driver when approaching the sign at the posted speed.

**CONCRETE BRICK AND BLOCK PRODUCTION:**

(11-20-01) (Rev. 11-21-06)

RR 112

Provide concrete brick and block from a producer who uses the current Solid Concrete Masonry Brick/Unit Quality Control/Quality Assurance Program that is in effect on the date that material is received on the project.

No price adjustment is allowed to contractors or producers who use the program. Participation in the program does not relieve the producer of the responsibility of complying with all requirements of the *Standard Specifications*. Copies of this procedure are available upon request from the Materials and Test Unit.

**REMOVAL OF EXISTING PAVEMENT MARKERS:**

(7-1-95)

RR 118

The Contractor's attention is directed to the fact that there are pavement markers on this project.

Remove and dispose of these markers prior to the paving operation.

No direct payment will be made for this work, as it will be incidental to the paving operation and payment at the contract unit price for the various asphalt items in the contract will be full compensation for such work.



**PAVEMENT MARKING LINES MEASUREMENT AND PAYMENT:**

(11-21-06)

RR 120

Revise the *2006 Standard Specifications* as follows:

Page 12-14, Subarticle 1205-10, delete the first sentence of the first paragraph and replace with the following:

*Pavement Marking Lines* will be measured and paid for as the actual number of linear feet of pavement marking lines per application that has been satisfactorily placed and accepted by the Engineer.